

Listing of Claims

This listing replaces all prior versions, and listings, of claims in the application:

1. (previously presented) A pharmaceutical gel composition comprising:
 - a solvent vehicle comprising 25 to 100 parts by weight water or buffered water and 0 to 75 parts by weight of ethanol, propylene glycol, glycerin, polyethylene glycol, or combinations thereof, where the solvent vehicle is 100 parts by weight total;
 - at least one water-insoluble swellable mucoadhesive polymer,
 - at least one pH-sensitive film-forming polymer forming a film when applied to skin or a mucosal surface, and
 - at least one molecule of interest.
2. (canceled).
3. (original) The gel of claim 1, wherein the water-insoluble swellable mucoadhesive polymer is polyacrylic acid cross-linked with polyalkenyl ether or divinyl glycol.
4. (previously presented) The gel of claim 1, wherein the water-insoluble swellable mucoadhesive polymer is NOVEON or CARBOMER.
5. (original) The gel of claim 1, wherein the water-insoluble swellable mucoadhesive polymer is present at a concentration of from 0.1% to 20% by weight.

6. (original) The gel of claim 1, wherein the pH-sensitive polymer is a copolymer of methacrylic acid and acrylic or methacrylic ester.

7. (original) The gel of claim 1, wherein the pH-sensitive polymer is present at a concentration of from 0.05% to 10% by weight.

8. (currently amended) The gel of claim 1, wherein the pH-sensitive polymer is a EUDRAGIT polymer, ~~or a chemical derivative thereof.~~

9. (currently amended) The gel of claim 1, wherein the molecule of interest comprises an active pharmaceutical ~~such as an antimicrobial, antiviral, antiinflammatory, antiseptic, antihistamine, a local anesthetic, a disinfectant, a keratolytic, an analgesic, an anti-migraine, an anti-fungal, a sweetener, a flavoring agent, a diagnostic agent, or combination thereof.~~

10. (original) The gel of claim 1, wherein the molecule of interest is amlexanox.

11. (original) The gel of claim 1, wherein the molecule of interest is triclosan.

12. (original) The gel of claim 1, wherein the molecule of interest is hirudin.

13. (original) The gel of claim 1, wherein the molecule of interest is plasmid DNA.

14. (original) The gel of claim 1, wherein the molecule of interest is lidocaine, benzocaine, or dyclonine.

15. (currently amended) The gel of claim 1, wherein the molecule of interest is at least one benzodiazepine drug ~~or derivative thereof~~.

16. (currently amended) A pharmaceutical gel which when applied to the skin or mucosal surface forms a film, said gel comprising (a) a solvent vehicle comprising at least 25 to 100 parts by weight water or buffered water with 0 to 75 parts by weight of ethanol, propylene glycol, glycerin, polyethylene glycol, or combinations thereof, where the solvent vehicle is 100 parts by weight total, (b) at least one water-insoluble swellable mucoadhesive polymer, (c) at least one pH-sensitive film-forming polymer, and (d) at least one molecule of interest, wherein said film is formed due to changes in pH and desolvation of the polymer, and wherein said film provides for the delivery of the molecule of interest to or through said skin or mucosal surface ~~the application site~~.

17. (canceled).

18. (original) The gel of claim 16, wherein the water-insoluble swellable mucoadhesive polymer is polyacrylic acid cross-linked with polyalkenyl ether or divinyl glycol.

19. (previously presented) The gel of claim 16, wherein the water-insoluble swellable mucoadhesive polymer is NOVEON or CARBOMER.

20. (original) The gel of claim 16, wherein the water-insoluble swellable mucoadhesive polymer is present at a concentration of from 0.1% to 20% by weight.

21. (original) The gel of claim 16, wherein the pH-sensitive polymer is a copolymer of methacrylic acid and acrylic or methacrylic ester.

22. (original) The gel of claim 16, wherein the pH-sensitive polymer is present at a concentration of from 0.05% to 10% by weight.

23. (currently amended) The gel of claim 16, wherein the pH-sensitive polymer is a EUDRAGIT polymer, ~~or chemical derivative thereof.~~

24. (currently amended) The gel of claim 16, wherein the molecule of interest comprises an active pharmaceutical ~~such as an antimicrobial, antiviral, antiinflammatory, antiseptic, antihistamine, a local anesthetic, a disinfectant, a keratolytic, an analgesic, an anti-migraine, an anti-fungal, a sweetener, a flavoring agent, a diagnostic agent, or combination thereof.~~

25. (original) The gel of claim 16, wherein the molecule of interest is amlexanox.

26. (original) The gel of claim 16, wherein the molecule of interest is triclosan.

27. (original) The gel of claim 16, wherein the molecule of interest is a peptide or protein.

28. (original) The gel of claim 16, wherein the molecule of interest is hirudin.

29. (original) The gel of claim 16, wherein the molecule of interest is plasmid DNA.

30. (original) The gel of claim 16, wherein the molecule of interest is lidocaine, benzocaine, or dyclonine.

31. (currently amended) The gel of claim 16, wherein the molecule of interest is at least one benzodiazepine drug ~~or derivative thereof~~.

32. (original) The gel of claim 16, wherein the application site is the skin, mouth, vagina, nose, nasal cavity, or other accessible mucosal site.

63. (new). The gel of claim 9, wherein the active pharmaceutical comprises an antimicrobial, antiviral, antiinflammatory, antiseptic, antihistamine, a local anesthetic, a disinfectant, a keratolytic, an analgesic, an anti-migraine, an anti-fungal, a sweetener, a flavoring agent, a diagnostic agent, or combination thereof.

64. (new). The gel of claim 24, wherein the active pharmaceutical comprises an antimicrobial, antiviral, antiinflammatory, antiseptic, antihistamine, a local anesthetic, a disinfectant, a keratolytic, an analgesic, an anti-migraine, an anti-fungal, a sweetener, a flavoring agent, a diagnostic agent, or combination thereof.